

## 207.4 Optoelectronics (solid forms)

These SRMs are intended for calibrating equipment (tunable diode lasers, video microscopes, optical spectrum analyzers, etc.) and measurement systems used in optoelectronics manufacturing and in the testing of optoelectronics components (lasers and detectors, optical fiber and fiber components, etc.). SRM 2513 is a single-mode fiber specimen certified for mode-field diameter at 1.31  $\mu\text{m}$  and 1.55  $\mu\text{m}$ ; SRMs 2514, 2515, 2517a and 2519a are fiber-connected molecular gas absorption cells with lines in the 1510 to 1630 nm region; SRMs 2518 and 2538 are devices with stable and known polarization mode dispersion-2518 simulates mode-coupled differential group delay (DGD) typical of optical fiber, whereas 2538 is a non-mode-coupled device exhibiting relatively wavelength-independent DGD typically found in components; SRM 2520 is an optical fiber specimen with a known cladding diameter value; SRM 2522 is a steel wire, with a known diameter, like those used to size bores in fiber connector ferrules; SRM 2523 is a ceramic connector ferrule with specified outside diameter and roundness; SRMs 2553 - 2555 are glass specimens with known diameter and a refractive index approximating that of the polymer coatings on fiber.

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

SRM	Description	Certified Property
2513	Mode-Field Diameter of Single-Mode Fiber	Mode-Field diameter at 1.31 $\mu\text{m}$ and 1.55 $\mu\text{m}$
2514	Wavelength Calibration Reference for 1560 nm to 1595 nm (Carbon Monoxide $^{12}\text{C}^{16}\text{O}$ )	41 lines in 3v band, in nm
2515	Wavelength Calibration Reference for 1595 nm to 1630 nm (Carbon Monoxide $^{13}\text{C}^{16}\text{O}$ )	41 lines in 3v band, in nm
2517a	High-Resolution Wavelength Calibration Reference for 1510 nm to 1540 nm (Acetylene $^{12}\text{C}_2\text{H}_2$ )	56 lines in $\nu_1 + \nu_3$ band, in nm
2518	Polarization-Mode Dispersion (Mode-Coupled)	Wavelength-averaged DGD
2519a	Wavelength Calibration Reference for 1530 nm to 1565 nm (Hydrogen Cyanide $\text{H}^{13}\text{C}^{14}\text{N}$ )	2 $\nu_3$ band, in nm
2520	Optical Fiber Diameter Standard	D = 125 $\mu\text{m}$ , nominal
2522	Pin Gauge Standard for Optical Fiber Ferrules	D = 126 $\mu\text{m}$ , nominal
2523	Optical Fiber Ferrule Geometry Standard	D = 2.5 mm, nominal
2538	Polarization-Mode Dispersion (Non-Mode Coupled)	Wavelength-averaged DGD
2553	Optical Fiber Coating Diameter (n = 1.504)	D = 240 $\mu\text{m}$ , nominal; n = 1.504, nominal
2554	Optical Fiber Coating Diameter (n = 1.515)	D = 240 $\mu\text{m}$ , nominal; n = 1.515, nominal
2555	Optical Fiber Coating Diameter (n = 1.535)	D = 240 $\mu\text{m}$ , nominal; n = 1.535, nominal

## 207.45 Electronics

RM 8130 is a coplanar waveguide calibration set fabricated on a gallium arsenide substrate.

<b>RM</b>	8130	Coplanar Waveguide	Multiline coplanar waveguide 12 verification devices
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